

Work Order ID 121442

121442

Page 1

Thursday, June 26, 2014 2:59:45 PM

Item ID: D4885-7 Accept *N900040100* Setup Start *NS1*
Revision ID: Stop *NS2*
Item Name: End Fitting
Start Date: 6/26/14 Start Qty: 10.00 *10* Cust Item ID:
Required Date: 6/26/14 Req'd Qty: 10.00 *10* Customer:
Reference:

Approvals: Process Plan: MLS Date: 14-06-27 Tooling: _____ Date: _____ Run Start *NR1*
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D4885	REV A

100 0.00

100 CY 14/07/08 10

Outsource5 0.00

Outsource process - Machining

Memo
ISSUE P/O: 24906
POSSIBLE SUPPLIER:ATG

C OF C IS REQUIRED

110 QC6- Inspect dimensions to drawing 0.00

110 (10) DAS 38 9-89

QC 0.00

Quality Control

JAN 07 2015

150 PURCHASING 0.00

150 CY 14/07/08 10

Purchasing 0.00

Purchasing

Memo
Issue P/O: 24906
LPI Per ASTM 1417 LEVEL 2
Certificate of conformaty is required

done@ ATG

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐															
Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐															
Large Fab ☐	Composite ☐	Supplier ☐																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced ☐ Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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Work Order ID 121442***121442***

Page 2

Item ID: D4885-7

Accept

N900040100Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: End Fitting

Start Date: 6/26/14

Start Qty: 10.00

10

Cust Item ID:

Required Date: 6/26/14

Req'd Qty: 10.00

10

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start ***NR1***

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop ***NR2***Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

160

Receive & Inspect for Damage & Mat'l Certs

0.00

160

Packaging

Memo

0.00

Packaging

Ensure certificate of conformity is attached

165

St

~~137~~ 137

10X 8015-01-7

190

QC21- Final Inspection - Work Order Release

0.00

190

QC

Memo

0.00

Quality Control

10 JAN 07 2015

DAS
06
9-89

MJS 15-01-08

15-1-8

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube ☐</td> <td>Crosstube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>	Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
Skid-tube ☐	Crosstube ☐	Water Jet ☐	Engineering ☐															
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other _____ _____ _____
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Picklist Print

*Thursday, June 26, 2014 2:59:45 PM

Page 1

Work Order ID: 121442

121442

Parent Item: D4885-7

D4885-7

Parent Item Name: End Fitting

Start Date: 6/26/14

Required Date: 6/26/14

Start Qty: 10.00

Required Qty: 10.00

Comments: IPP REV:A NEW ISSUE 14-01-28 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4885-7P		Purchased		No			Each	0.0000		10			
D4885-7P									**				
End Fitting													
M174PH-H900R2.000		Purchased		No			f	47.0458		10			
M174PH-H900R2 000									**				
17-4SS H900 ROUND BAR 2.000													

10 x 8015-01-7

14-7-10 DAS 13 8-89

Location	Loc Qty	Loc Code
MAT031	47.0458	
M128314	22.4	
M128809	24.6458	

11.3 Rt

1 foot extra DAS 13 8-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

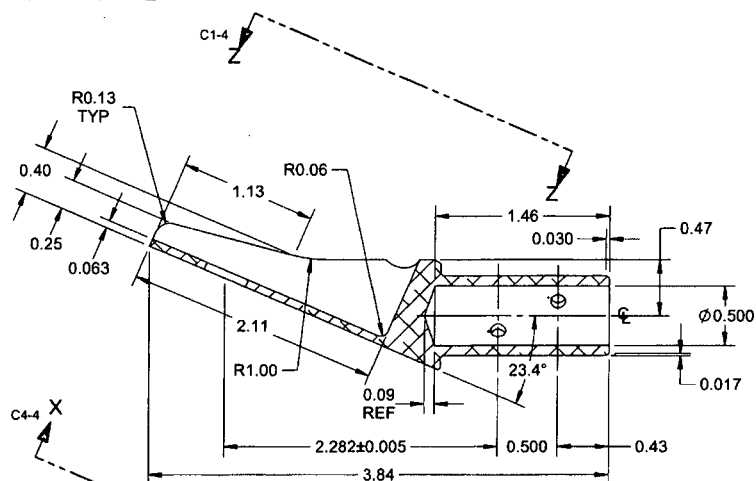
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Crosstube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐
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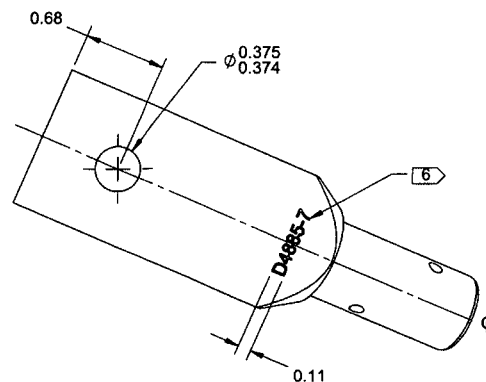
Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

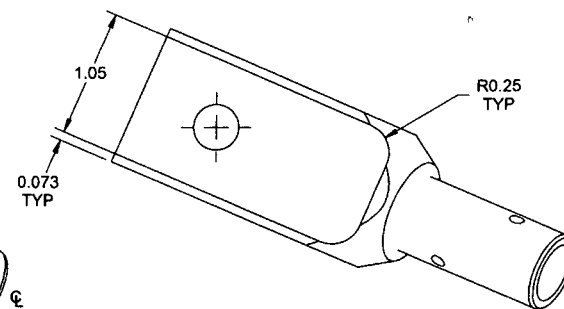
Landing Gear ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Inspection Strip in Tube ☐ Marks/Chatter ☐ Turning Sequence ☐ Wave/Twist in Tube	General ☐ Bend ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Burrs ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Drawing ☐ Drill Holes ☐ Finish ☐ Fit/Function	☐ Folio/Program ☐ Grain ☐ Hardware ☐ Inspection Incomplete/Unqualified ☐ Instructions Incomplete/Unclear ☐ Misaligned/off center ☐ Mislabeled ☐ Misread ☐ Off-set ☐ Out of Calibration ☐ Out of Sequence	☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Positioned Wrong ☐ Power Loss/Surge ☐ Pressure/Forced Set-up ☐ Temperature/Cure ☐ Weld ☐ Wrong Stock Pulled ☐ Other
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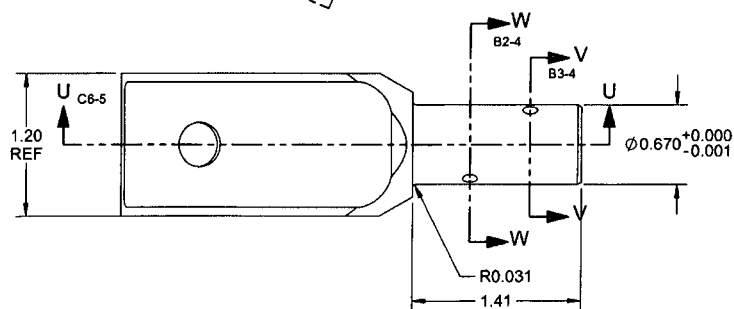
SECTION U-U B8-4



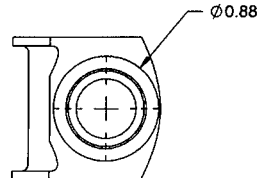
AUXILIARY VIEW X-X C8-4



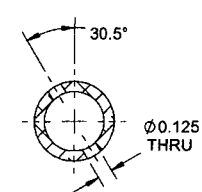
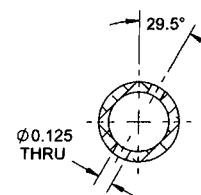
AUXILIARY VIEW Z-Z D7-4



SECTION V-V B6-4



SECTION W-W B6-4



NOTES:

- 1) MATERIAL: 17-4 PH/S17400/TYP 630 SS ROUND BAR, H900 CONDITION
PER AMS 5643/ASTM A564
DART SPEC M17-4-R
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.3.
ENGRAVE P/N USING 0.11 HIGH LETTERS TO A MAX. DEPTH OF 0.010
- 7) WEIGHT: 0.22 lbs
- 8) LIQUID PENETRANT INSPECT PER QSI 038 6.1.1 (ASTM E1417 LEVEL 2)

D4885-7 END FITTING

SHOP COPY

RETURN TO

ENGINEERING

UNCONTROLLED COPY

SUBJECT TO AMENDMENT

WITHOUT NOTICE

WORK ORDER

NO. 121442 MLJ

14-06-27

APPROVED

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	DC	DRAWING NO.	REV. A
MFG. APPR.	JLM	D4885	SHEET 5 OF 5
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	END FITTING	NTS
DATE	13.12.01	COPYRIGHT © 2013 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR DISSEMINATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

2013-12-12



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO24906

Purchase Order Date 7/8/2014
PO Print Date 8/20/2014

Page Number 5 of 8

Order From:

VC-ATG001

Ship To: DART AEROSPACE LTD

A.I.G. INDUSTRIES INC.
31 INDUSTRIELLE ROAD
RICHMOND, ON K4K 1T2
CANADA

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 613-446-4544

Ship To Contact

Ship To Phone

Ship Via: VENDOR'S TRUCK

Ship Acct:

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

FCA - (Free Carrier)

Line Total:

D4885-5P

End Fitting

12/19/2014 FN

Yes

12/19/2014

5.00

Each

\$166.50

AS PER DWG D4885-5 REV. A

BL21407

MAT. 174PH-H900R 2" M128314

Line Total:

D4885-7P

End Fitting

12/19/2014 FN

Yes

12/19/2014

10.00

Each

\$138.50

AS PER DWG D4885-7 REV. A

BL21442

MAT. 174PH-H900R 2" M128809

Line Total:

D4805-5P

End Fitting

12/19/2014 FN

Yes

12/19/2014

16.00

Each

\$147.00

AS PER DWG D4805-5 REV. A

BL21547

Note:

8/20/2014



A.T.G. INDUSTRIES INC.
731 INDUSTRIELLE STREET
ROCKLAND, ON K4K 1T2
Canada

Ph: (613) 446-4544
Fax: (613) 446-4556

Pack List

Number: 909410

Date: 07-Jan-15

To

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7
Canada

Ship To

CHANTAL LAVOIE
DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY, ON K6A 1K7
Canada

Ph: 613 632-9577

Fax: 613 632-1053

Ph: 613 632-9577

Fax: 613 632-1053

Terms		Ship Via	
Quantity	Description		
	PLEASE REFERENCE THE PACK LIST NUMBER ON ALL CORRESPONDENCE TO THIS SHIPMENT. IF YOU HAVE ANY QUESTIONS, PLEASE CALL AT (613) 446-4544.		
5 ea	Part: D4885-5P END FITTING Job: 16647	PO: PO24906	Rev: A Line: 12
10 ea	Part: D4885-7P END FITTING Job: 16648	PO: PO24906	Rev: A Line: 13 <i>SP15-017</i>
12 ea	Part: D4806-1P CLEVIS Job: 16643	PO: PO24906	Rev: A Line: 8
DATE: <i>07/01/2015</i> CERTIFIED SIGNATURE: <i>[Signature]</i> RECEIVER SIGNATURE: _____ Note: This Packing Slip may contain parts that have been PLATED. Items that are plated may be subject to natural tarnishing and it is suggested that they be inspected within 24 hours of receipt. CERTIFICATE OF CONFORMANCE A.T.G. INDUSTRIES INC. CERTIFIES THAT ALL ITEMS IN THIS SHIPMENT CONFORM TO THE REQUIREMENTS. MADE IN CANADA.			



8p 15-01-7.
F.A.I.

First Article Inspection Report

#

533

Requesting Company: Dart Aerospace PO#: PO24906 Line: 13 Qty: 10

Part Number: D4885-7P Rev: A Part Description: END FITTING

FAI Supplied by: A.T.G. Industries Inc. FAI Prepared by: Emily Louis-Seize Date: 14-Jul-2014

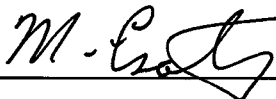
Qty Inspected: FAI Inspected by: Mike Csontos Date: 5-Jan-2015

Material and/or Special Processes

Type	Description	Specification Number/Code	Certificate of Conformance Number:
Material	17-4SS H900		Supplied by Customer
Special Process	Liquid Penetrant	QSI 038 6.1.1 (ASTM E1417 Level 2)	PO#: 20140525

Inspection Information and Results

Char#	Location	Requirement	Result	UoM	Pass/Fail	Measurement Equipment:	Operation #:
1	D6	1.46	1.462	Inch	Pass	Depth Micrometer	1
2	D6	.030	.030	Inch	Pass	Comparator	1
3	D5	.47	.47	Inch	Pass	Height Gauge	2
4	C5	Ø.500	Ø.502	Inch	Pass	Gauge Pin	1
5	C5	.017	.017	Inch	Pass	Comparator	1
6	C6	.43	.426	Inch	Pass	Height Gauge	3
7	C6	.500	.500	Inch	Pass	Height Gauge	3
8	C6	23.4°	23.4°	Degree	Pass	Comparator	2
9	C7	3.84	3.835	Inch	Pass	Height Gauge	2
10	C7	2.282±.005	2.281	Inch	Pass	Height Gauge	3
11	C7	.09 REF	.093	Inch	Pass	Depth Micrometer	1

Inspection Information and Results							
Char#	Location	Requirement	Result	UoM	Pass/Fail	Measurement Equipment:	Operation #:
12	C7	R1.00	R1.0	Inch	Pass	Radius Gauge	2
13	C7	2.11	2.109	Inch	Pass	Height Gauge	2
14	D8	.063	.065	Inch	Pass	Micrometer	2
15	D8	.25	.249	Inch	Pass	Comparator	2
16	D8	.40	.40	Inch	Pass	Comparator	2
17	D8	R.13 TYP	R.125	Inch	Pass	Radius Gauge	2
18	D7	1.13	1.13	Inch	Pass	Comparator	2
19	D7	R.06	R.06	Inch	Pass	Radius Gauge	2
20	D5	.68	.681	Inch	Pass	Vernier Caliper	2
21	D4	Ø.375/.374	Ø.3747	Inch	Pass	Gauge Pin	2
22	D3	Note 6	D4885-7	Inch	Pass	Visual	2
23	C4	.11	.115	Inch	Pass	Vernier Caliper	2
24	D3	1.05	1.05	Inch	Pass	Vernier Caliper	2
25	D1	R.25 TYP	R.25	Inch	Pass	Radius Gauge	2
26	D3	.073 TYP	.074	Inch	Pass	Micrometer	2
27	B5	Ø.670 +.000/-.001	Ø.6696	Inch	Pass	Micrometer	2
28	B6	1.41	1.411	Inch	Pass	Height Gauge	2
29	B6	R.031	R.031	Inch	Pass	Radius Gauge	2
30	B8	1.20 REF	1.2	Inch	Pass	Vernier Caliper	2
31	B4	Ø.88	Ø.878	Inch	Pass	Comparator	1
32	B3	29.5°	29.5°	Degree	Pass	Comparator	1
33	B3	Ø.125 THRU	Ø.125	Inch	Pass	Gauge Pin	1
34	B2	30.5°	30.5°	Degree	Pass	Comparator	1
35	B1	Ø.125 THRU	Ø.125	Inch	Pass	Gauge Pin	1
First Article Inspection Report Approved and Completed in Full by:							
				Date: 6-Jan-15			

**skyservice****Work Order Traveler**

Sky Service F.B.O. Inc.

DOT APP 53-89 / EASA 145.7142 / BDA AMO 385

WO #: MWO23142	Customer: ATG Industries Inc	Dept: NDT YUL	Reference: 20140525
Descr:	PN:	S/N:	Qty: 1
Make:	Model:	Reg:	A/C S/N:
TSN:	CSN:	TSO:	
Task: UNSCHEDULED			Sequence: 1

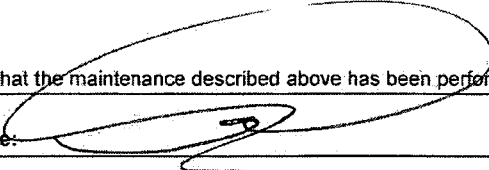
Work Required:

CARRY OUT NDT ON SEVENTY-FIVE PARTS AS PER PO :20140525

CLEVIS	P/N D4806-1P QTY:12
END FITTING	P/N D4920-1P QTY:12
END FITTING EYE	P/N D4884-3P QTY:16
END FITTING	P/N D4885-5P QTY:6
END FITTING	P/N D4885-7P QTY:11
END FITTING	P/N D4920-3P QTY:18

Action Taken:					Date:	Initial/Stamp:
LIQUID PENETRANT INSPECTION CARRIED OUT AS PER ASTM E-1417M-13 NO CRACK FOUND PEN.(ZL-37 , B#10A070), DEV.(SKD-S2,B#13D14k) , EMU.(ZR-10B,B#10A074).					JAN 06 2015	 
Description	Location	P/N	Qty	Batch	S/N Off	S/N On

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

Signature: 	ACA/SCA Stamp 	Date: JAN 06 2015
Name: RAFIK MELIKIAN		

SKYM002-1 REV 4 Mar/14

COPY